

Appl. No. 10/810,804
Amendment dated: December 13, 2005
Reply to OA of: September 13, 2005

REMARKS

This is in response to the Official Action of September 13, 2005. Applicants have amended the specification in order to address the objection to the Summary of the Invention as set forth in the outstanding Official Action. Specifically, the Summary of the Invention has been amended to not merely recite the claims and to include additional information regarding the scope and purpose of the invention. Applicants respectfully assert that the Summary of the Invention now complies with 37 C.F.R. §§1.73 and 1.75, the first paragraph of 35 U.S.C. §112 and the second paragraph of 35 U.S.C. §112. Accordingly, Applicants respectfully request that the objection to the Summary of the Invention be withdrawn.

The rejection of claims 1-4 under 35 U.S.C. §102(b) as being anticipated by Applicants' admitted prior art (AAPA) has been carefully considered but is most respectfully traversed in light of the following comments.

Applicants wish to direct the Examiner's attention to MPEP § 2131 which states that to anticipate a claim, the reference must teach every element of the claim.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed Cir. 1989). The elements must be arranged as required by the claim, but this is not an *ipsissimis verbis* test, i.e., identity of terminology is not required. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed.Cir. 1990).

The Official Action urges that AAPA discloses a substrate 12, a pad oxide layer 14, a pad nitride layer 16, a borophosphosilicate glass layer 18 and a borosilicate glass layer 20. Applicants specifically traverse this statement.

As can clearly be seen from a careful reading of the specification and Figures 1 and 2, the AAPA discloses a substrate 12, a pad oxide layer 14, a pad nitride layer,

Appl. No. 10/810,804
Amendment dated: December 13, 2005
Reply to OA of: September 13, 2005

a **borosilicate glass layer 18** and an undoped silicate glass layer 20. That is to say, layer 18 is a **borosilicate glass layer** and not a **borophosphosilicate glass layer** as urged by the Official Action. AAPA does not disclose the use of borophosphosilicate glass anywhere in the structure illustrated in Figures 1 and 2. As explained in detail in the specification, the borosilicate glass layer and a borophosphosilicate glass layer serve as a hard mask layer. While most boron in the borophosphosilicate glass layer will diffuse upward in a direction towards the borosilicate glass layer after the semiconductor structure is subjected to an annealing process, little phosphorous diffuses upward. Abundant phosphorous doped in the borophosphosilicate glass layer enables the borophosphosilicate glass layer to be easily and completely removed away from the semiconductor substrate by using the vapor of hydrogen fluoride. This is in contrast to AAPA where a borophosphosilicate layer is not used in the semiconductor structure. As can be seen in Figure 3A, the borosilicate layer 18 becomes difficult to remove and therefore the semiconductor structure disclosed by AAPA is more difficult to construct than the presently claimed invention.


Therefore, because AAPA clearly fails to disclose a borophosphosilicate glass layer and a borosilicate glass layer as claimed in the present application, Applicants respectfully assert that a proper §102(b) rejection according to MPEP §2131 has not been established. Accordingly, Applicants respectfully request that this rejection be withdrawn.

Appl. No. 10/810,804
Amendment dated: December 13, 2005
Reply to OA of: September 13, 2005

In view of the above comments and further amendments to the claims,
favorable reconsideration and allowance of all of the claims now present in the
application are most respectfully requested.

Respectfully submitted,

BACON & THOMAS, PLLC

By: 
Scott A. Brairton
Registration No. 55,020

625 Slaters Lane, 4th Fl.
Alexandria, Virginia 22314
Phone: (703) 683-0500
Facsimile: (703) 683-1080

SAB
A01.wpd

December 13, 2005